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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,401	06/23/2005	Akihiko Nishio	L9289.05151	9722

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EXAMINER	
KHAN, MEHMOOD B	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,401	NISHIO ET AL.	
	Examiner	Art Unit	
	MEHMOOD B. KHAN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37 and 38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 37 and 38 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of copending Application No. 12/341306 in view of Hashem et al. (US 20040125743).

Conflicting claims 1-3, and instant claims 37 and 38 are drawn to generating one channel quality indicator for subcarriers. These claims differ in scope in that the instant claims 36 and 37 are narrower than conflicting claims 1-3.

Conflicting claims 1-3 disclose instant claims 37 and 38 as follows:

Conflicting claim 1. A radio communication apparatus comprising: a channel quality indicator generating section that generates one channel quality indicator representing reception quality of a plurality of subcarriers; and a reporting section that reports the generated one channel quality indicator.

Conflicting claim 2. The radio communication apparatus according to claim l, wherein the channel quality indicator generating section generates the one channel quality indicator representing the reception quality of a plurality of selected subcarriers.

Conflicting claim 3. The radio communication apparatus according to claim 2, wherein the reporting section reports the generated one channel quality indicator and information about the selected subcarriers.

However, the conflicting claims do not specifically disclose representing an average CQI of the selected subcarrier blocks.

In an analogous art, Hashem discloses representing an average CQI of the subcarriers **(0020, where Hashem discloses taking average of the S/Is of all the**

subcarriers). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify conflicting application 12/341306 to include using one CQI as taught by Hashem so as to determine a single link mode based on the average quality **(0012)**.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 37 and 38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Claims recite the limitation "the CQI being a single value" which is not present in the submitted specification. The Applicant seems to rely on the abstract. The abstract states that "a CQI based on CIR average values" but nowhere does it state that claimed CQI is a single value. Thus the claims contain new matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 2009/0279498 herein Li) in view of Hashem et al. (US 2004/0125743 herein Hashem).

Claim 37, Li teaches a radio communication apparatus **(Abstract)** for receiving an OFDM **(Abstract, OFDMA)** signal comprising:

a reception section that receives information of a number **(0080, cluster allocation, thus information of a number, since the base station transmits that information must be received, thus reception section)** from a communicating party **(0080, cluster allocation transmitted from base station)**, the number corresponding to subcarrier blocks **(0077, cluster<u>s</u>)** to be used for averaging reception quality **(0077, averaging SINR)**;

a CQI generating section that generates one CQI **(0077, average of SINR for clusters, thus CQI generating section)**, a reporting section that reports the generated CQI **(0077, feedback thus reporting section)** and information indicating positions **(0077, Cluster index)** of the selected subcarrier blocks, to the communicating party **(0077, feedback sent to the base station)**.

Li does not explicitly teach, in the same embodiment, a subcarrier block selection section that selects subcarrier blocks up to the number, the selected subcarrier blocks providing preferred reception quality.

However in an alternative embodiment Li teaches a subcarrier block **(0086, clusters)** selection section that selects subcarrier blocks up to the number **(0086, Group index, SINR for clusters in the group thus subcarrier block selection)**, the selected subcarrier blocks providing preferred reception quality **(0086, SINR higher then threshold for clusters, thus preferred reception quality)**. Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to slightly modify the teachings of Li in order to reduce overhead on feedback **(0086)**,

the CQI being a single value **(0077, SINR of each cluster)** representing an average of reception quality **(0077, average).**

Li does not explicitly teach the average being averaged only over the selected subcarrier blocks.

In an analogous art, Hashem teaches the average being averaged only over the selected subcarrier blocks **(0008, average of the groups)**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Li to average reception quality as taught by Hashem so as to allow selection of a link mode **(0008)**.

Claim 38, as analyzed with respect to the limitations as discussed in claim 37.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire

later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEHMOOD B. KHAN whose telephone number is (571)272-9277. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. B. K./
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617